USAF Scientific Advisory Board

2002 Summer Study

Predictive Battlespace Awareness to Improve Military Effectiveness

Terms of Reference

October 3, 2001

BACKGROUND

Better utilization of information for more effective combat operations has been an ongoing theme in the Air Force for the last several years. There is a real need for a forward looking analysis of making better use of what we have as advance preparation for conflict, and in predictive analysis that allows effective management of information collection and flow up to and including real time sensor management in conflict.

Predictive Battlespace Awareness has been defined by Gen Jumper to include baseline reconnaissance, terrain delimitation, focused surveillance, catalogued analysis of movement patterns, knowledge of enemy tactics, intentions, and disposition, and course-of-action analysis. Several SAB studies over the last few years have defined approaches to managing information, and the importance of coordinating and fusing data. In 1999 the SAB defined an approach called the Joint Battlespace InfoSphere (JBI), to collect and provide information and situation awareness to warfighters. The 2001 Summer Study on Sensors for Difficult Targets highlighted the need to make better use of available information.

STUDY PRODUCTS

Briefing to SAF/OS & AF/CC by August 2002. Publish report by December 2002.

CHARTER

The goal of the 2002 SAB Summer Study is to define a process and an approach and technology needed to enable joint Predictive Battlespace Awareness. The study will build on previous SAB studies, including the JBI study, the C2 study and the Sensors study. The study will not address specific sensors, logistics support, or acquisition. The study will recommend:

- Improvements to the Air Force PBA process and architecture in a joint environment
- The overall process for gathering, processing, and cataloging information – ultimately for the JBI – including interactions between the AF and other information gatherers
- The roles and responsibilities defined in the PBA process, including sensor taskers, data processors, information disseminators, course of action developers, analysts, and decision makers
- The state of technology for developing required tools, including course of action development and assessment tools
- An affordable program to provide PBA in the near term, building toward the JBI in the future
- An assessment of the capabilities that would be available over time as the PBA architecture is implemented.